

We Claim:

1. A method of manufacture of a substantially continuous circumferential coating on a non-planer substrate, said method comprising the steps of:
 - 5 utilising a substantially non directional deposition technique and a substantially static substrate deposition geometry to deposit said coating.
 2. A method as claimed in claim 1 wherein the coating has piezo-electric modulation characteristics.
 - 10 3. A method as claimed in claim 1 or 2 wherein the coating has electro-optic modulation characteristics.
 4. A method as claimed in any one of the preceding claims wherein the coating has semiconducting properties.
 - 15 5. A method as claimed in any preceding claims wherein the coating comprises substantially Zinc-Oxide.
 6. A method as claimed in any one of the preceding claims wherein the non directional deposition technique comprises chemical vapour deposition.
 - 20 7. A method as claimed in claim 6 wherein the non directional deposition technique comprises single source chemical vapour deposition.
 8. A method as claimed in any one of the preceding claims wherein the non-planar substrate is an optical fibre.
 - 25 9. A method as claimed in claim 8 wherein at least one end of the optical fibre is clamped onto a substantially planar heating surface during the deposition.
 10. A method as claimed in claim 8 wherein the optical fibre is clamped at a portion of the length of the fibre which is located at one end of a heating surface during the deposition.
 - 30 11. A method as claimed in claim 8 wherein a movement of a free end of the optical fibre is limited to movement substantially along the axis of the optical fibre.
 - 35 12. A receptacle for an optical fibre arranged to be used in a method of manufacture of a circumferential

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coating on an optical fibre utilising a substantially non directional deposition technique and a substantially static substrate deposition geometry, said receptacle comprising:

a substantially planar heating surface;

5 a clamping means for clamping the substrate fibre onto the heating surface, wherein the clamping means is arranged to clamp the fibre at a portion of the length of the optical fibre which is located at one end of the heating surface during the manufacture of the coating; and

10 means for limiting a movement of a free end of the optical fibre to movement substantially along axis of the optical fibre.

13. An acusto-optical phase modulator having a phase modulation efficiency greater than substantially 0.25
15 rad/ $\sqrt{\text{MW}}/\text{cm}$.

14. An acusto-optical phase modulator having a substantially linear relationship between phase modulation and driving power for driving powers greater than 36mW.

15. An acusto-optical phase modulator as claimed in
20 claim 13 or claim 14 including a piezo-electric modulator having a zinc oxide layer constructed substantially in accordance with the method of any of claims 1 to 11.